

Transmittal Letter to the United States
Designated/Elected Office (DO/EO/US)

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FORM PTO-1390

09/402581

524 Rec'd PCT/PTO 06 OCT 1999

Docket No. : **KO-33PCT**
U.S. Application No. :
International Application No. : **PCT/DE98/00903**
International Filing Date. : **March 28, 1998 (28. März 1998)**
Priority Date Claimed : **April 8, 1997 (8 April 1997)**
Title of Invention : **METHOD AND CIRCUIT FOR OPERATING AN ELECTRICAL LIGHT**
Applicant(s) for (DO/EO/US) : **Norbert Becker**

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

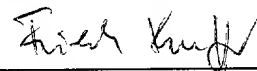
1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☒ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371
3. ☒ This express request to begin national examination procedures 35 U.S.C. 371 (f) at any time rather than delay examination until the expiration of the applicable time limit set forth in 35 U.S.C 371(b) and PCT Articles 22 and 39(1)
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed [35 U.S.C 371(c)(2)].
 - a) ☒ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b) ☐ has been transmitted by the international Bureau.
 - c) ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ A translation of the International Application into English [35 U.S.C.371(c)(2)].
7. ☐ Amendments to the claims of the International Application under PCT Article 19 [35 U.S.C.371(c)(3)].
 - a) ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b) ☐ have been transmitted by the International Bureau.
 - c) ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d) ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 [35 U.S.C.371(c)(3)].
9. ☒ An oath or declaration of the inventor(s) [35 U.S.C 371(c)(4)]. **UNSIGNED**
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 [35 U.S.C.371(c)(5)]

Items 11. to 16. below concern other document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 C.F.R. 1.97 and 198
12. ☐ An Assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☐ A **FIRST** preliminary amendment.
☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ (other items or information) **One sheet of drawing (Figure 1)**

EXPRESS MAIL No.: **EL 355 313 766 US** Deposited: **October 6, 1999**

I hereby certify that this correspondence is being deposited with the United States Postal Service Express mail under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, DC 20231.


Friedrich Kueffner

October 6, 1999
Date

09/402581

U.S. Application No. (if known, see 37 C.F.R. 1.50):
 International Application No. : PCT/DE98/00903

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17. ☒ The following fees are submitted:

BASIC NATIONAL FEE [37 CFR 1.492(a)(1)-(5)]:

- ☒ Search Report has been prepared by the EPO or JPO..... \$ 930.00
- ☐ International preliminary examination fee paid to USPTO [37 CFR 1.482]:..... \$ 700.00
- ☐ No International preliminary examination fee paid to USPTO [37 CFR 1.482]
 but International search fee paid to USPTO [37 CFR 1.445(a)(2)]:..... \$ 760.00
- ☐ Neither International preliminary examination fee [37 CFR 1.482] nor
 International search fee [37 CFR 1.445(a)(2)] paid to USPTO:..... \$ 970.00
- ☐ International preliminary examination fee paid to USPTO [37 CFR 1.482]
 and all claims satisfied provisions of PCT Article 33 (2) to (4):..... \$ 96.00

ENTER APPROPRIATE BASIC FEE AMOUNT: \$ 930.00

Surcharge of \$ 130.00 for furnishing the oath or declaration later than 20 30 months
 from the earliest claimed priority date [37 CFR 1.492(e)]

Claims	filed	Extra	Rate
Total Claims	19	-20=	x \$ 18.=
Indep. Claims	1	- 3=	x \$ 78.=
Multiple Dependent Claims (if applicable) + \$ 260.=			\$ 260.00

TOTAL OF ABOVE CALCULATIONS: \$1190.00

Reduction by 1/2 for filing by small entity, if applicable. Verified Small Entity
 Statement must be filed also. [Note 37 CFR 1.9, 1.27, 1.28]

(divided by 2)

SUBTOTAL: \$1190.00

Processing fee of \$ 130.00 for furnishing the English translation later than 20 30 months
 from the earliest claimed priority date [37 CFR 1.492(f)]

TOTAL NATIONAL FEE: \$1190.00

Fee for recording the enclosed assignment [37 CFR 1.21(h)] the assignment must be
 accompanied by an appropriate cover sheet [37 CFR 3.28, 3.31]. \$ 40.00 per property

TOTAL FEES ENCLOSED: \$1190.00

AMOUNT TO BE REFUNDED: Refunded \$

AMOUNT TO BE CHARGED: Charged \$

- a) ☒ A check in the amount of \$1190.00 to cover the above fees is enclosed.
- b) ☐ Please charge my Deposit Account No. 11-1835 in the amount of \$ to cover the above fees.
 A duplicate copy of this sheet is enclosed.
- c) ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any
 overpayment to Deposit Account No. 11-1835. A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit under 36 CFR 1.494 or 1.495 has not been met, a petition to revive [37 CFR 1.137(a) or (b)] must
 be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

Friedrich Kueffner
 342 Madison Avenue
 Suite 1921
 New York, NY 10173

Friedrich Kueffner
 Name

signature

29,482
 Reg. No.

October 6, 1999
 Date

**VERIFIED STATEMENT (DECLARATION)
CLAIMING SMALL ENTITY STATUS
(37 CFR 1.9(f) and 1.27(c)) -
SMALL BUSINESS CONCERN
DOCKET NO: KO-33**

I hereby declare that I am

- ☐ the owner of the small business concern identified below:
☐ an official of the small business concern empowered to act on behalf of the concern identified below:

NAME OF CONCERN: KBL Solarien AG

ADDRESS OF CONCERN: Ringstrasse 24 - 26, D-56307 Dernbach, Germany

I hereby declare that the above identified small business concern qualifies as a small business concern as defined in 13 CFR 121.3-18, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention, entitled METHOD AND CIRCUIT FOR OPERATING AN ELECTRICAL LIGHT by inventor(s) Norbert Becker described in

- ☒ the specification filed herewith
☐ application serial no. _____, filed _____
☐ patent no. _____, issued _____

If the rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights to the invention is listed below* and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 CFR 1.9(d) or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

***NOTE:** Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

FULL NAME: _____

ADDRESS: _____

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING:
TITLE OF PERSON OTHER
THAN OWNER:

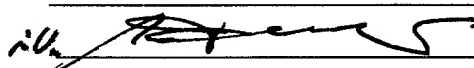
NORBERT BECKER

TECHNICAL DIRECTOR

ADDRESS OF PERSON SIGNING:

HOCHSTRASSE 2A ; 56581 KURTSCHIED

SIGNATURE:



DATE:

DEC 22, 1999

09/402581

METHOD AND CIRCUIT ARRANGEMENT FOR THE OPERATION OF AN
ELECTRIC GAS DISCHARGE LAMP

The invention is directed to a method for the operation of an electric gas discharge lamp, e.g., of an UV low-pressure tube, in artificial sunning and irradiation devices and to a circuit arrangement for carrying out the method.

It is known, for example, that the light output or radiation output of UV low-pressure tubes used for artificial sunning and irradiation decreases already after a relatively short operating duration (total operating duration) to the extent that they must be replaced by new UV low-pressure tubes; otherwise, in the case of sunning, the expected results of irradiation would inevitably lead to unacceptably long - and constantly longer - periods of use. However, it is also known with respect to other electric gas discharge lamps emitting UV radiation and/or normal light radiation that their light output or radiation output decreases more or less rapidly in operation. The necessary exchange consequently gives rise to considerable costs particularly as applies to the above-mentioned case of UV low-pressure tubes whose price is several times that of normal lighting tubes (fluorescent tubes).

In order to prolong the operating duration of the relatively expensive UV low-pressure tubes mentioned above, which is usually approximately 500 hours, attempts have already been undertaken in the area of the electric or electronic ballast devices required in these gas discharge

lamps such that a switching of the electric output emitted at the gas discharge lamp is carried out manually in such a way that in case of a light output or radiation output of the gas discharge lamp (that is, the UV low-pressure tube in the present example) which is already dropping sharply, the electric output to be supplied is increased suddenly by a larger amount, so that a light output or radiation output of the gas discharge lamp which corresponds more or less precisely to that at the beginning of use is obtained again.

A device for checking and displaying the remaining operating duration of xenon lamps is known from U.S. Patent 4,831,564, which device comprises a housing which uses a new, unused xenon lamp. The xenon lamp then emits its light via a surrounding filter. A sensor by which the light emission or radiation emission of the xenon lamp is checked is located in the housing. When the light output or radiation output of the xenon lamp decreases, the sensor controls a regulator which increases the electric output supplied to the xenon lamp, so that the xenon lamp always delivers a constant light output or radiation output. The values determined during this checking for the required power consumption of the xenon lamp are stored. Based on the values stored for different types of xenon lamps, it is possible to determine the remaining life or operating duration of a new xenon lamp, but also particularly that of a xenon lamp which is already used. The total period of use (total operating duration) of a gas discharge lamp is not influenced for achieving an extensively constant light

output or radiation output in this case. (Accordingly, a closed regulating loop is used for determining the required power consumption at constant light output or radiation output.)

Therefore, it is the object of the invention to considerably lengthen the total useful period (total operating duration) of a gas discharge lamp in the simplest and most economical manner without resulting in factors interfering with practical useful operation - for example, with respect to UV low-pressure tubes - such as excessively long and/or more or less sharply fluctuating treatment or sunning times.

In order to meet this object, the features indicated in the characterizing part of claim 1 are suggested.

The use of the method according to the invention makes it possible to operate electric gas discharge lamps, e.g., such as UV low-pressure tubes, over a considerably longer time period compared with the previously known mode of use, namely, at least essentially always at that light output or radiation output which was predetermined individually and, of course, within the framework of the technical possibilities of the gas discharge lamps in question. Consequently, considerable costs can be saved, e.g., precisely in the operation of solaria, through improved utilization of the UV low-pressure tubes which are usually used therein, without becoming noticeable in a disadvantageous manner through more or less sharply fluctuating treatment or sunning periods.

Further advantageous constructions of the inventions and a circuit arrangement for carrying out the methods are disclosed in claims 2 to 17.

With respect to the characteristic data of a gas discharge lamp, it is noted that by this is meant especially the decrease in light output or radiation output depending on the total operating duration of the individual gas discharge lamp, wherein this is known, for example, from the manufacturer's specifications; however, other dependencies of the light emission behavior or radiation behavior of the respective gas discharge lamp, e.g., the temperature of the surroundings in which the gas discharge lamp is operated, can also be included herein. Further, with regard to the UV low-pressure tubes mentioned above or other gas discharge lamps, the electric or electronic data of the electric or electronic ballast device used in this case are pertinent and can be incorporated in the control process or in the regulating process with respect to the light or radiation emitted by the gas discharge lamp in question.

Further, the claims - whose content will, without further explanation, be readily understood by the person skilled in the art taking into account the problem and objective outlined above and the inventions indicated for the solution thereof - are hereby also expressly incorporated in the subject matter of the description. However, it should be noted in addition that because of its technical simplicity and efficacy in a relatively economical possible realization, the solution

according to the invention according to method claim 1 or circuit arrangement claim 9 can be used in a particularly advantageous manner for solving the problems indicated above.

The invention will be explained more fully in the following with reference to an embodiment example shown in the drawing.

This drawing shows a block diagram, as it is called, of a control circuit which first includes a control device 1 constructed as a processor. This control device 1 is supplied with a usual voltage, for example, 220 V, via a line 2. A plurality of, for example, ten, compensation characteristic lines of commercially available gas discharge lamps, for example, UV lamps 3 which are used in a UV irradiation device 4, for example, for the human body and parts thereof, are stored in the control device 1.

UV lamps 3 of this kind have the peculiarity that the UV output power, as it is called, decreases relatively sharply as the burning or operating duration increases. For example, after an operating duration of approximately 500 hours, the UV output power is reduced by approximately 30%. This reduction is unsatisfactory and, although the UV lamps 3 are actually still usable, leads to an exchange and therefore to a production of extra waste. Further, UV lamps 3 of this kind are relatively expensive.

A plurality of electronic ballast devices 5a - 5e assembled in a block are arranged between the UV irradiation device 4 and its UV lamps 3, wherein one ballast device 5a to

5e is associated with each UV lamp 3. It is also possible to provide a ballast device 5a supplying two or more UV lamps 3. The ballast devices 5a - 5e are connected to a current supply line 6. Depending on identical or different types of UV lamps 3, the electronic ballast devices 5a - 5e are controlled in such a way, via one of more compensation characteristic lines stored and selected in the control device 1, that always a current intensity of this kind, but an increasing current intensity, for supplying the UV lamps 3 is supplied to the individual or selected UV lamps 3 such that the latter always emit a uniform UV output power. This approximately constant output power can apply either at the full output of the UV lamps 3 or at an output which is reduced within certain limits, wherein in the latter case the operating duration of the UV lamps 3 is increased. For example, it is possible to use UV lamps 3 with a higher, normally impermissible UV radiation intensity which only emits a reduced, but extensively constant, UV output.

The light output or radiation output actually emitted by one or more gas discharge lamps 3 at a given time can be measured via at least one sensor 7 and compared with a reference value stored in a unit 8. In case of deviation from the reference value, this is conveyed to the control device 1 which then influences the electronic ballast devices 5a to 5e in a corresponding manner.

It is possible to measure the temperature in the area of the gas discharge lamps and/or of the surrounding air which

disadvantageously impairs the work of the gas discharge lamps and to supply this to the control device 1 as a correction value.

The control signals supplied to the ballast devices 5a - 5e by the control device 1 can be modulated digitally as well as in analog with respect to current, voltage or frequency. A reset switch 9, as it is called, which is actuated for restarting after the exchange of the gas discharge lamps 3 is associated with the control device 1.

Patent Claims

1. Method for the operation of electric gas discharge lamp (3), e.g., of an UV low-pressure tube, in artificial sunning and irradiation devices characterized by the following features:

a) the characteristic data for the individual gas discharge lamp (3) with respect to the decrease in the light output or radiation output are stored in an electronic storage depending on the total operating duration of the gas discharge lamp (3),

b) the respective individual operating duration of the gas discharge lamp (3) is measured and added to the preceding individual operating durations in order to obtain the total operating duration of the individual gas discharge lamp, and

c) the electric output to be supplied to the gas discharge lamp (3) at a given time is automatically adjusted depending on the stored characteristic data with respect to the decrease in light output and radiation output and the respective total operating duration of the gas discharge lamp (3) for obtaining a predetermined light output or radiation output, e.g., a light output or radiation output remaining at least approximately constant.

2. Method according to claim 1, characterized in that relevant data of the ballast device (3a to 5c) which is to be used/which is used will be/are stored in the electronic

storage in addition to the characteristic data with respect to the decrease in the light output or radiation output of the gas discharge lamp (3).

3. Method according to claim 1, characterized in that the electric output to be supplied to the gas discharge lamp (3) is adjusted in such a way that it is smaller by a certain fraction, for example, about 10% smaller, than the electric nominal output of the lighting means.

4. Method according to claim 1, characterized in that the control signals required for adjusting the respective electric output to be emitted at the gas discharge lamp (3) are supplied in digital form to the ballast device 5a to 5c associated with the gas discharge lamp (3).

5. Method according to claim 1, characterized in that the control signals required for adjusting the respective electric output to be emitted at the gas discharge lamp (3) are supplied in analog form to the ballast device associated with the gas discharge lamp (3).

6. Method according to claim 3 or 4, characterized in that the control signals are current-modulated.

7. Method according to claim 3 or 4, characterized in that the control signals are voltage-modulated.

8. Method according to claim 3 or 4, characterized in that the control signals are frequency-modulated.

9. Circuit arrangement for carrying out the method according to claim 1, characterized by electric or electronic controlling means (1) containing a storage for characteristic data of the gas discharge lamp (3) and located in the circuit of the gas discharge lamp (3) for adjusting an electric output to be supplied to the gas discharge lamp (3) for the purpose of obtaining a predetermined light output or radiation output of the gas discharge lamp (3), e.g., a light output or radiation output remaining at least approximately constant, within predetermined limits, and by time-measuring means for the total operating duration of the gas discharge lamp (3), which time-measuring means are associated with the gas discharge lamp (3) and are electrically connected with the above-mentioned controlling means for the purpose of adjusting the electric output to be supplied to the gas discharge lamp (3) in dependence on the total operating duration of the gas discharge lamp (3).

10. Circuit arrangement according to claim 9, characterized in that the electric or electronic controlling means comprise, apart from an electronic processor, a storage

receiving characteristic data of the gas discharge lamp (3), and time-measuring means, an electronic ballast device (5a to 5c) with adjustable output power.

11. Circuit arrangement according to claim 10, characterized in that the electronic ballast device (5a to 5c) is designed for processing control signals which contain, in the form of a frequency, the information pertaining to the electric output to be supplied to the gas discharge lamp.

12. Circuit arrangement according to claim 10, characterized in that the electronic ballast device (5a to 5c) is designed for processing control signals which contain, in the form of a voltage, the information pertaining to the electric output to be supplied to the gas discharge lamp (3).

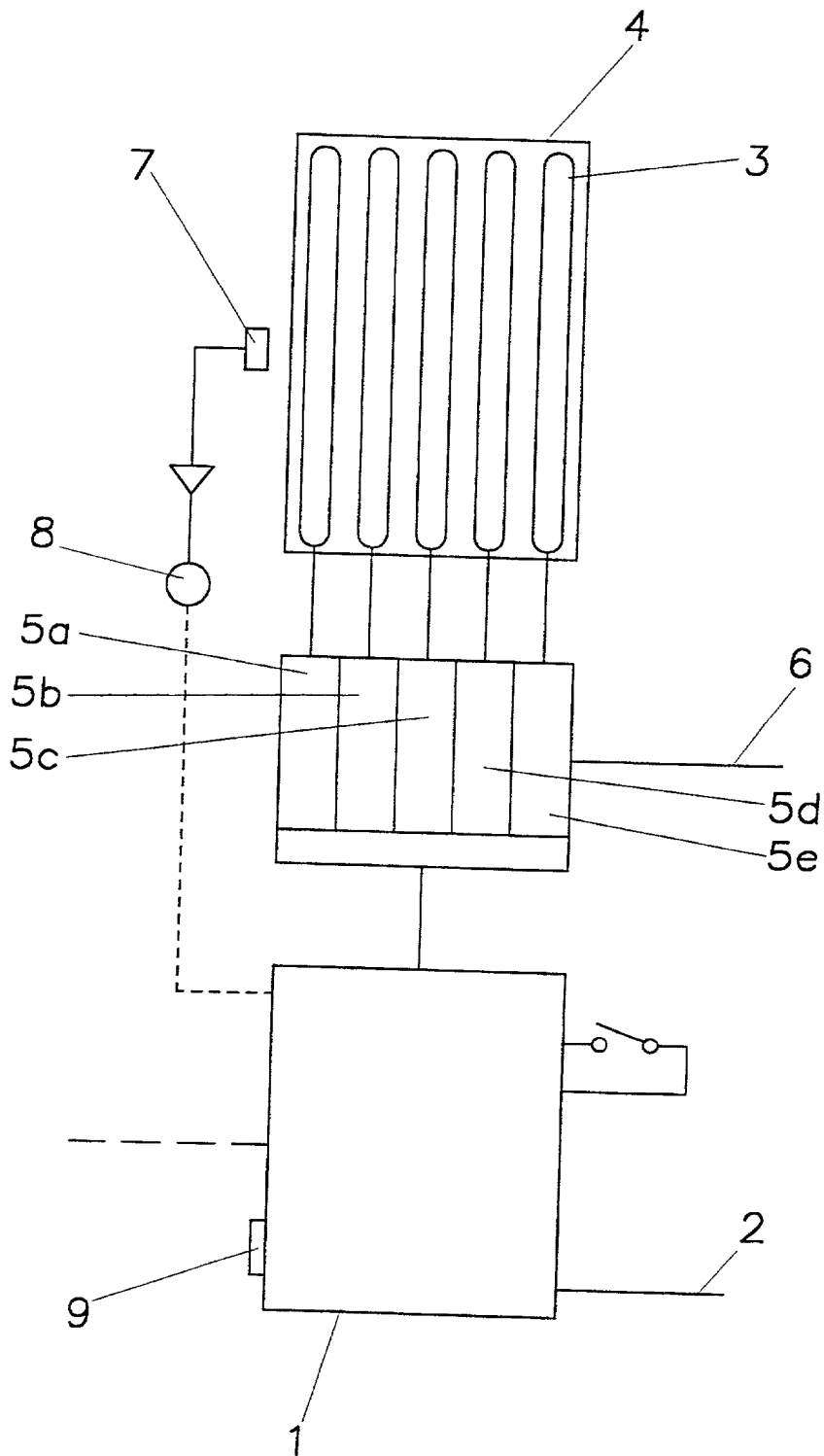
13. Circuit arrangement according to claim 10, characterized in that the electronic ballast device (5a to 5c) is designed for processing control signals which contain, in the form of a current, the information pertaining to the electric output to be supplied to the gas discharge lamp (3).

14. Circuit arrangement according to claim 11, characterized in that the time-measuring means for the total operating duration of the gas discharge lamp (3) are connected with adjusting means for the initialization of the time measurement.

15. Circuit arrangement according to claim 13, characterized in that the adjusting means can be manually actuated for the initialization of the time measurement.

16. Circuit arrangement according to claim 13, characterized in that the adjusting means for the initialization of the time measurement are arranged adjacent to the gas discharge lamp (3) which is fastened or can be fastened in an enclosure or the like and the adjusting means can be actuated together with a movement of the gas discharge lamp (3) into the enclosure or out of the enclosure or the like.

17. Circuit arrangement according to claim 9, characterized in that the controlling means for the adjustment of the electric output to be supplied to the gas discharge lamp (3) and/or the time-measuring means associated with the lighting means are connected with an optic and/or acoustic signal device for signaling the given total operating duration achieved by the lighting means.



COMBINED DECLARATION FOR PARENT APPLICATION AND POWER OF ATTORNEY
(includes Reference to PCT International Applications)

Attorney's Docket No.
KO-33

As a below named inventor, I hereby declare that:
My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: METHOD AND CIRCUIT FOR OPERATING AN ELECTRICAL LIGHT

the specification of which (check only one item below):

☐

is attached hereto.

☐

was filed as United States application

Serial No. _____

on _____

and was amended

on _____ (if applicable).

☒

was filed as PCT international application

Number PCT/DE98/00903

on March 28, 1998

and was amended under PCT Article 19

on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. 119:

COUNTRY (if PCT, indicate PCT)	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 USC 119
GERMANY	197 14 416.0	8 April 1997	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

Combined Declaration For Parent Application and Power of Attorney (Continued)
(includes Reference to PCT International Applications)

Docket No.
KO-33

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of the application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty of disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. 120:

U.S. APPLICATIONS

STATUS(CHECK ONE)

*U.S. APPLICATION NUMBER

U.S. FILING DATE

PATENTED

PENDING

ABANDONED

PCT APPLICATIONS DESIGNATING THE U.S.

PCT APPLICATION NO.

PCT FILING DATE

U.S. SERIAL NO.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (List name and registration number)

FRIEDRICH KUEFFNER, REG. NO. 29,482

Send Correspondence to:

FRIEDRICH KUEFFNER
342 MADISON AVENUE, SUITE 1921
NEW YORK, N.Y. 10173

Direct Telephone Calls to:

FRIEDRICH KUEFFNER
(212) 986-3114

FULL NAME
OF INVENTOR

Family Name

Becker

First Given Name

Norbert

Second Given Name

RESIDENCE &
CITIZENSHIP

City

Neuwied

State Or Foreign Country

Germany

Citizenship

Germany

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56581 Neuwied

State & Zip Code

Germany

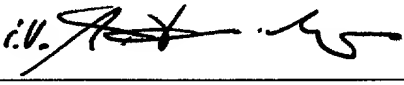
Combined Declaration For Parent Application and Power of Attorney (Continued)
(includes Reference to PCT International Applications)

Docket No.
KO-33

2	FULL NAME OF INVENTOR	<u>Family Name</u>	<u>First Given Name</u>	<u>Second Given Name</u>
0	RESIDENCE & CITIZENSHIP	<u>City</u>	<u>State Or Foreign Country</u>	<u>Citizenship</u>
2	POST OFFICE ADDRESS	<u>Post Office Address</u>	<u>City</u>	<u>State & Zip Code</u>

2	FULL NAME OF INVENTOR	<u>Family Name</u>	<u>First Given Name</u>	<u>Second Given Name</u>
0	RESIDENCE & CITIZENSHIP	<u>City</u>	<u>State Or Foreign Country</u>	<u>Citizenship</u>
3	POST OFFICE ADDRESS	<u>Post Office Address</u>	<u>City</u>	<u>State & Zip Code</u>

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE OF INVENTOR 201 	SIGNATURE OF INVENTOR 202	SIGNATURE OF INVENTOR 203
DATE Dec 22, 1999	DATE	DATE